## National Institute of Technology, Tiruchirappalli

The National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli (NITT) was started as a joint and co-operative venture of the Government of India and the Government of Tamil Nadu in 1964 with a view to catering the needs of manpower in technology for the country. NITT is one of the 31 National Institutes of Technology established by the Government of India and ranks first among all the NITs in NIRF ranking. The institution offers Undergraduate Courses in ten branches and Post Graduate Courses in twenty-six disciplines of Science, Engineering & Technology besides M.S. (by Research) and Ph.D. in all the departments.

## Department of Electronics and Communication Engineering

The Electronics and Communication Engineering (ECE) Department was established in the year 1968. The vision of the department is to provide valuable resources for industry and society through excellence in technical education and research. The Department offers Under graduate, Post Graduate, Research Degrees (M.S. & Ph.D.) programs. Research in the Department focuses on various disciplines such as Communication Systems, Wireless Networks, Signal and Image Processing, RF MEMS, Microwave Antennas, MIC, Optical Communication, Photonics and VLSI systems.

### Karyashala (High-End Workshop)

**'KARYASHALA'** scheme by SERB is meant for skill development training on topics required for scientific research work. It is an effort to improve research productivity of promising PG and PhD students from universities and colleges through high-end workshops on specific themes. This program aims to provide opportunities to acquire specialized research knowledge. **Website: [Click here](#)**

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**Karyashala**

**(High-End Workshop)**

**on**

**Modelling of Energy Efficient Waveforms and Systems for B5G Communications**

**(3 July - 9 July, 2023)**

**Organized by**

**Department of Electronics and Communication Engineering**

**National Institute of Technology, Tiruchirappalli**

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## Registration Fee

Registration fee **is not charged.** The course is completely sponsored by SERB Accelerate Vigyan Karyashala (High-End Workshop) program.

## Course Features

- Certificate to the participants on successful completion of the course.
- Course materials and stationery/consumable items will be provided to the participants.

## General Information

- **Eligibility:** Students pursuing PG or PhD in Electronics and Communication Engineering, or any other specialization relevant to wireless communication or signal processing.
- **Accommodation** for participants will be provided at NIT Tiruchirappalli hostel (based on availability) with catering facilities, if requested.
- Students selected for this workshop are eligible for **Travel allowance (TA) reimbursement** for their journey to NIT Tiruchirappalli from their home town or host institute as well **as return journey as per SERB & GoI norms.**
- Candidates will be selected on the **basis of merit**. After last date of registration, selected candidates will be intimated through email.
- Selected candidates will have to acknowledge participation in the workshop through return email failing which the **waitlisted candidates will be called for attending the workshop.**
- The candidate must get a letter of authentication about your current affiliation and **No Objection Certificate (NOC)** from **Supervisor or Head of the Department or Head of the institute**. This letter must be uploaded in the registration link for participating in the workshop. The format for the same is provided herewith. It must be obtained on the institute/university letterhead.

## Number of Seats

- Total number of seats is **limited to 25**.

**Last Date of Registration
10 June 2023**

## Workshop Objective

- To highlight recent research achievements on topics relevant to radio waveform design for future-generation wireless communications with practical knowledge.
- To offer strategies for reducing physical layer complexity and enhancing communication performance beyond 5G and 6G.
- To stimulate the exchange of ideas and experiences related to statistical modelling by basic programming modules via hands-on-training sessions.

## Focus Areas

- Intelligent reflecting surfaces for B5G communications.
- Frequency diversity schemes in Orthogonal Frequency Division Multiplexing (OFDM) based Index Modulation (IM).
- Intelligent reflecting surface assisted Orthogonal Time Frequency Space Modulation (OTFS).
- OTFS-based Non-Orthogonal Multiple Access (NOMA) techniques.
- Rate Splitting Multiple Access (RSMA).
- Full duplex communication.
- Hybrid beamforming.

## Registration Procedure

- Register online using the following link or QR code:



MEEWS4-B5G

**Click here**

## No Objection Certificate (NOC)

- No Objection Certificate using the following link or QR code:



**Click here**

## Expert Speakers

- Experts from Industry and Academia (IITs, NITs, IIITs, etc.) will be delivering talks along with few hands-on training sessions.

**Address for Correspondence:**

**Dr. P. Maheswaran (Convener),**

**Assistant Professor**
**Department of ECE**

**#110, Silver Jubilee Building,**
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